

Application Number: 09/830,894
Amendment Dated: November 28, 2005
Reply to Office Action Dated: August 30, 2005

REMARKS

This amendment is responsive to the Office Action dated August 30, 2005 for which a three (3) month period of response was given. No extension of time or additional claim fees are believed. However, should an extension of time and/or additional claims fees be found due, the Commissioner is hereby authorized to treat this paper as a petition for an extension of time and/or as authorization to charge any additional fees to Deposit Account No. 50-0959, Attorney Docket No. 089498,0338.

Claims 1 through 4, 6 through 34, 70, 106 through 108, 111 and 112 are pending in the present application upon entry of this amendment. Claims 105, 109 and 110 have been cancelled. Claims 35 through 69 and 71 through 104 were previously canceled. The Applicant once again reserves the right to file one or more divisional cases, at a later date, directed to non-elected claims 35 through 69 and 71 through 104.

Claims 1, 70, 107 and 111 have been amended. Claim 1 has been amended to incorporate the subject matter of cancelled claim 105, while claim 70 has been amended to incorporate the subject matter of cancelled claim 110. Claims 107 and 111 have been amended to address the 35 U.S.C. § 112, second paragraph rejection (*i.e.*, to remove various items from the Markush groups of claims 107 and 111 that are not biosurfactants.

Furthermore, since the amendments and new claims place the application in condition for allowance, remove issues in the event of an appeal, and do not require a further search, entry of such amendments and new claims is respectfully requested.

The 35 U.S.C. § 112, Second Paragraph, Rejection:

Claims 107, 111 and 112 have been rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Specifically, the Examiner contends that claims 107 and 111 list therein terms that are not biosurfactants. Claims 107 and 111 have been amended to remove all terms from the Markush groups contained therein that would not be considered biosurfactants, to one of ordinary skill in the art.

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In light of the amendments to claims 107 and 111, the 35 U.S.C. § 112, second paragraph, rejection of claims 107, 111 and 112 have been rendered moot. Accordingly, withdrawal of the 35 U.S.C. § 112, second paragraph, rejection of claims 107, 111 and 112 is believed due and is respectfully requested.

The 35 U.S.C. § 102(b) Rejection:

Claims 1 through 4, 10, 16 through 19, 21, 28, 31 through 34, 70 and 111 have been rejected under 35 U.S.C. § 102(b) over Robertson et al. (Applied and Environmental Microbiology, November 1988, pp. 2812 – 2818). Robertson et al. relates to a study of simultaneous heterotrophic nitrification and aerobic denitrification in *Thiosphaera pantoropha*, and to its nitrification potential.

As would be apparent to one of ordinary skill in the art, upon reading and understanding the study presented in Robertson et al. one of ordinary skill in the art would recognize that Robertson et al. fails to disclose or suggest the process of pending claims 1 and 70. This is because Robertson et al. is not concerned with the production and recovery of at least one biosurfactant, biopolymer, protein, and/or enzyme (emphasis added – see claim 1). Nor is Robertson et al. concerned with increasing the concentration of a microorganism in a medium, where the microorganism is capable of the production of at least one biosurfactant (emphasis added – see claim 70). Instead, all that is disclosed or suggested by Robertson et al. is a manner by which to determine if *Thiosphaera pantoropha* has the capability to simultaneously undergo heterotrophic nitrification and aerobic denitrification, and to its nitrification potential.

Since Robertson et al. fails to disclose each and every aspect of claims 1 and 70, and in particular those aspects emphasized above, Robertson et al. fails to anticipate claims 1 through 4, 10, 16 through 19, 21, 28, 31 through 34, 70 and 111. Accordingly, withdrawal of the novelty rejection of claims 1 through 4, 10, 16 through 19, 21, 28, 31 through 34, 70 and 111 is believed due and is respectfully requested.

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The 35 U.S.C. § 103(a) Rejection:

Claims 1 through 4, 6 through 34, 70, 106 through 108, 111 and 112 have been rejected under 35 U.S.C. § 103(a) over Robertson et al. in view of Wendt et al. (U.S. Patent No. 3,939,068), Brock et al. (Biology of Microorganisms, 3rd Edition, Prentice-Hall, Inc. 1979), and Wagner et al. (U.S. Patent No. 4,814,272). Robertson et al. is discussed above.

Wendt et al. relates to a process for treating waste water containing cellulose nitrate particles. The process disclosed in Wendt et al. involves the use of a microorganism to denitrify waste water. Wendt et al. is not concerned with, nor does it disclose, teach or suggest, the production and recovery of at least one biosurfactant, biopolymer, protein, and/or enzyme (emphasis added – see claim 1). Nor is Wendt et al. concerned with increasing the concentration of a microorganism in a medium, where the microorganism is capable of the production of at least one biosurfactant (emphasis added – see claim 70).

In response to the Examiner's argument that Wendt et al. produces a biological product, namely water, Applicant would like to point out that Wendt et al. is not producing water. Rather, Wendt et al. is only concerned with the removal of cellulose nitrate particles from a waste water stream. In other words, Wendt et al. is only concerned with purifying and/or "cleaning" a waste water stream, not with the production of one or more biological products from a microorganism or in increasing the concentration of a microorganism in a medium, where the microorganism is capable of the production of at least one biosurfactant.

Brock et al. is a text book that, among other things, discusses anaerobic respiration in microorganisms. As such, Brock et al. is not concerned with, nor does it disclose, teach or suggest, the production and recovery of at least one biosurfactant, biopolymer, protein, and/or enzyme (emphasis added – see claim 1). Nor is Brock et al. concerned with increasing the concentration of a microorganism in a medium, where the microorganism is capable of the production of at least one biosurfactant (emphasis added – see claim 70). Accordingly, Brock et al. fails to cure the deficiencies of Robertson et al.

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Wagner et al. relates to the production anionic rhamnolipids via the use of a microorganism. However, as is disclosed in Wagner et al., the process disclosed therein is solely based on aerobic respiration. As such, Wagner et al. is not concerned with, nor does it disclose, teach or suggest, the production and recovery of at least one biosurfactant, biopolymer, protein, and/or enzyme (emphasis added – see claim 1). Nor is Wagner et al. concerned with increasing the concentration of a microorganism in a medium, where the microorganism is capable of the production of at least one biosurfactant (emphasis added – see claim 70). Accordingly, Wagner et al. fails to cure the deficiencies of Robertson et al.

Given the teachings contained in Wendt et al.; Brock et al.; and Wagner et al., the combination of Robertson et al. with any one or more of Wendt et al.; Brock et al.; and Wagner et al. fails to render obvious claims 1 through 4, 6 through 34, 70, 106 through 108, 111 and 112. Accordingly, withdrawal of the obviousness rejection of claims 1 through 4, 6 through 34, 70, 106 through 108, 111 and 112 is believed due and is respectfully requested.

Conclusion:

For the foregoing reasons, the rejections under 35 U.S.C. §§ 102(b), 103(a), and 112, second paragraph, are believed to be unfounded. Accordingly, withdrawal of the pending rejections and allowance of all of the pending claims is respectfully requested.

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Should the Examiner wish to discuss any of the foregoing in more detail, the undersigned attorney would welcome a telephone call.

Respectfully submitted,



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